RINNAI

Reflection

Flame Fire Operation and Installation Manual

This appliance shall be installed in accordance with:

- Manufacturer's Installation Instructions
- Local Gas Fitting Regulations
- NZS 5261 and Australian Installation Code AS5601
- Municipal Building Codes
- Any other local relevant statutory regulation

This product is only to be installed with an approved Rinnai flue system.
Installation and service must be performed by an authorised person.

INSTALLER: Please leave this manual with the customer after installation
OWNER: Please retain this manual for future reference

LIMITED WARRANTY
Rinnai Reflection Flame Fires

Rinnai brings you peace of mind with a 2 year minimum warranty.

TERMS AND CONDITIONS

1. During the 24 month period from date of purchase and subject to clauses 2 and 3 below, Rinnai New Zealand Limited ("Rinnai") will, at its own discretion, either replace or repair any defective product at no charge to the customer.
2. This warranty covers manufacturing defects only. This warranty will not apply if (for example) the product has been improperly installed or is otherwise installed contrary to manufacturer's recommendations, has been damaged during or after installation, has not been operated in accordance with operating instructions, or has been subjected to damage or abuse beyond that expected from conditions of normal use.
3. Warranty claims may be invalid if not accompanied by details of the installing or supervising gas fitter's registration number and the gas fitting certification number.
4. This warranty commences from the date of purchase. Proof of purchase is required at the time of any warranty claim.
5. Servicing of the product is to be carried out by a Rinnai authorised service centre.

All Rinnai appliances meet or exceed the safety standards required by New Zealand gas and electrical regulations. The company is constantly improving its products and as such specifications are subject to change or variation without notice.

Please keep these instructions in a safe place for future reference.

RECORD AND ATTACH YOUR PROOF OF PURCHASE BELOW:

Your Retailer:_____

Name:_____

Address:_____

_____

Telephone:(_____) _____

Date of Purchase: _____ / _____ / _____

Rinnai
GAS APPLIANCES

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WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. For assistance or additional information consult an authorised person or Rinnai on 0800 RINNAI (0800 746 624).

Installation and service must be performed by an authorised person.

Introduction

Congratulations on the purchase of your Rinnai Reflection Flame Fire.

Rinnai has been supporting New Zealand for over 30 years with quality appliances, and we're proud to have our products used everyday by many New Zealanders.

Rinnai Reflection...a reflection of inspired design, from an initial pencil sketch to ingeniously designed, precision-engineered working models. The result is a New Zealand-made fire that combines unrivalled energy efficiency with world-leading aesthetics and ergonomic considerations.

Available in three designer models:

- Advance (best suited to masonry installations)
- Amplify (best suited to floor mounted false chimney installations)
- Elevate (best suited to up-wall false chimney installations)

Advance

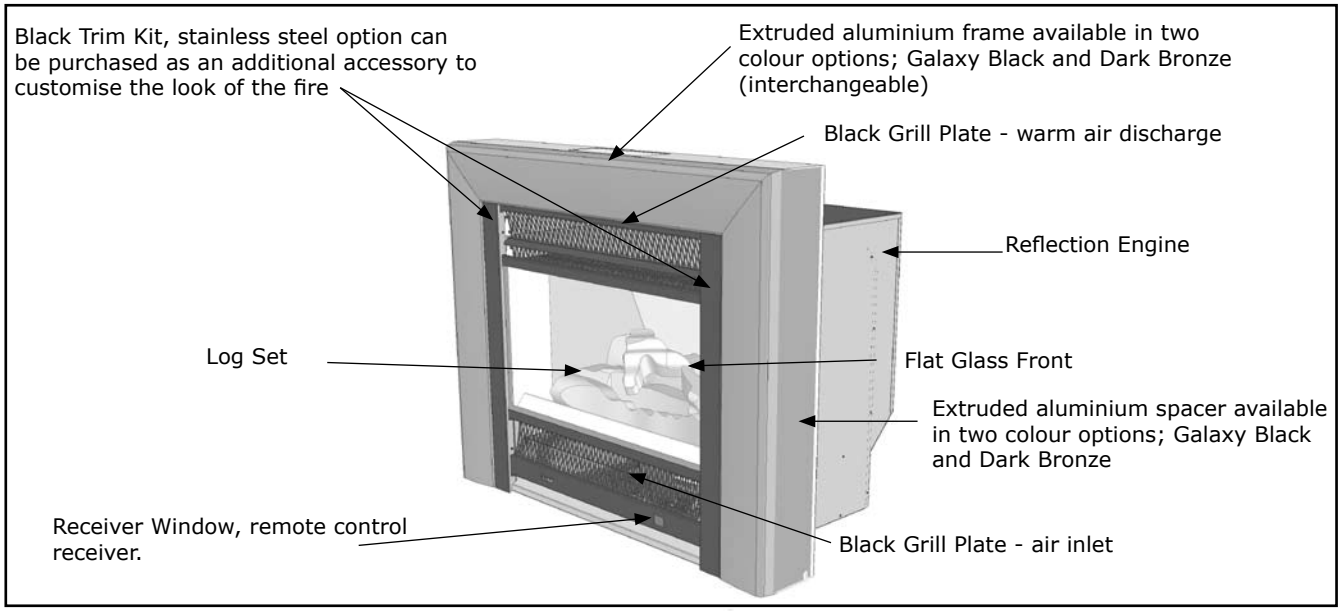
Amplify

Elevate

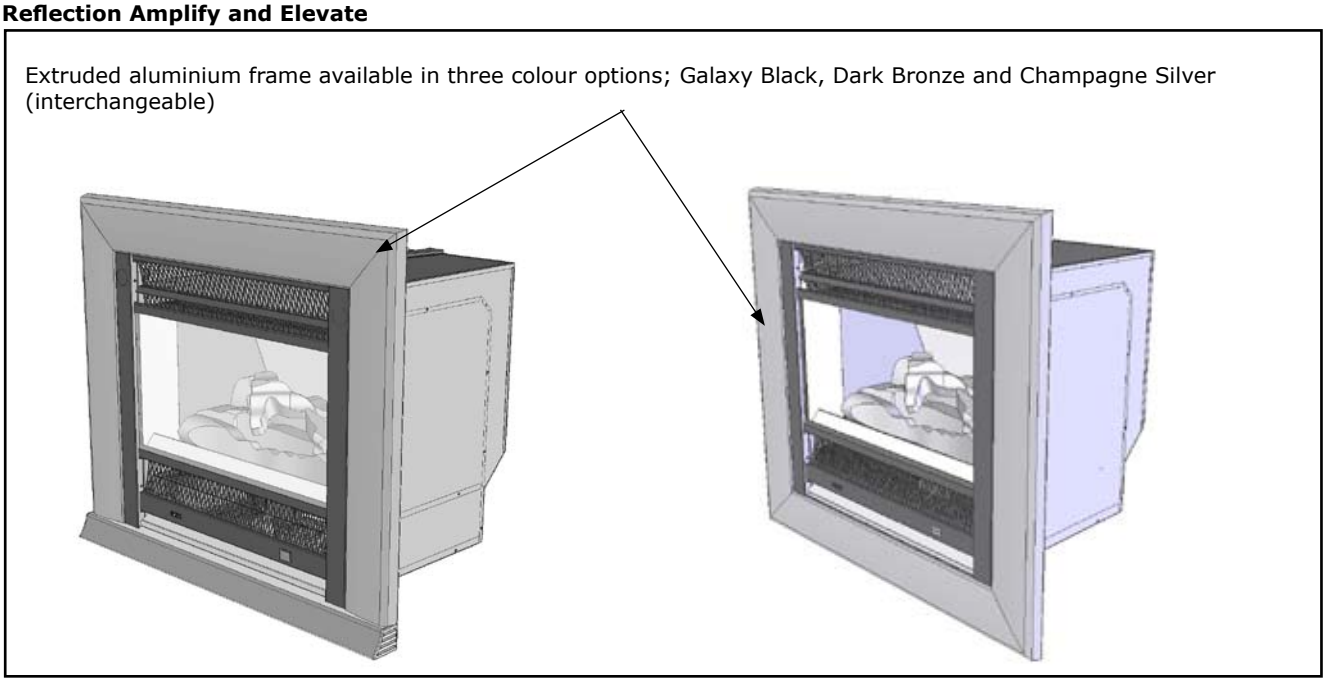
General Design Layout

The Reflection models differ only in the colour of frame surround and installation application.

Reflection Advance


Black Trim Kit, stainless steel option can be purchased as an additional accessory to customise the look of the fire
Extruded aluminium frame available in two colour options; Galaxy Black and Dark Bronze (interchangeable)
Black Grill Plate - warm air discharge
Reflection Engine
Log Set
Flat Glass Front
Extruded aluminium spacer available in two colour options; Galaxy Black and Dark Bronze
Receiver Window, remote control receiver.
Black Grill Plate - air inlet

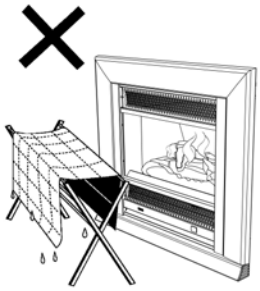
Reflection Amplify and Elevate


Extruded aluminium frame available in three colour options; Galaxy Black, Dark Bronze and Champagne Silver (interchangeable)

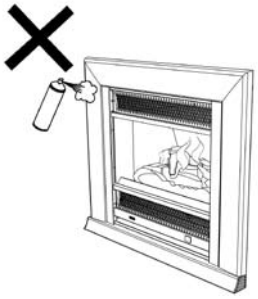
Safety

Do not restrict the warm air discharge by placing articles in front of the appliance.

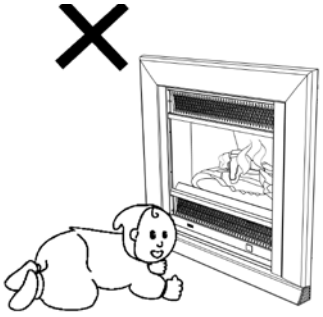
This appliance must not be used for any purpose other than heating.



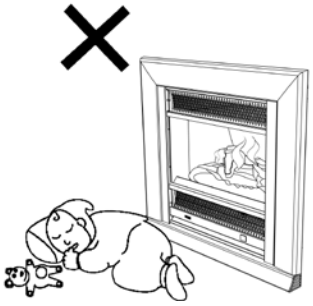
Do not spray aerosols whilst the appliance is operating. Most aerosols contain butane gas, which can be a fire hazard if used near the appliance when it is in use.



Young children should be supervised at all times. Hand or body contact with the heater must be avoided.

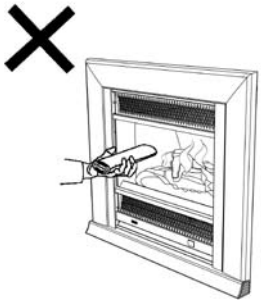


Do not sleep directly in front of the appliance.

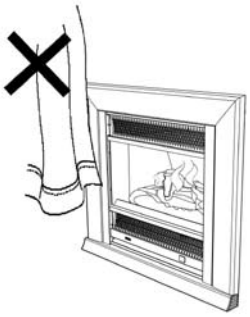


Do not allow anyone to sit on or lean against the appliance.

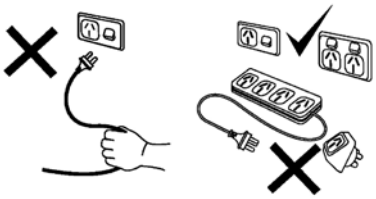
Do not allow anyone to post articles through into the heater.



Do not allow curtains or other flammable or combustible materials to come into contact with appliance.



Do not unplug the appliance while it is in operation. Unplugging the appliance will switch it off and will reset the appliance to its default settings.



A dedicated 230~240V 10 Amp power point must be used with this appliance. Do not use power boards or double adaptors to operate this appliance.

Some floorings will react to heat. Therefore it is recommended that a mat be placed in front of the appliance when it is in operation.

When the appliance is operated for the first time or after long periods of non-use a slight odour may be emitted. This is normal, however if odours persist switch off the appliance and contact a Rinnai Service Centre.

Do not place articles on or against this appliance. Do not use or store flammable materials near this appliance. Do not spray aerosols in the vicinity of this appliance whilst in operation.

Installation

Unpacking the Appliance and Associated Accessories

Unpack the appliance and check for damage. If damaged contact your supplier for advice. Do not install a damaged appliance.

Before installing, check the label for correct gas type and that you have all the components you need, refer checklist on page 23).

Gas type label is displayed on the appliance

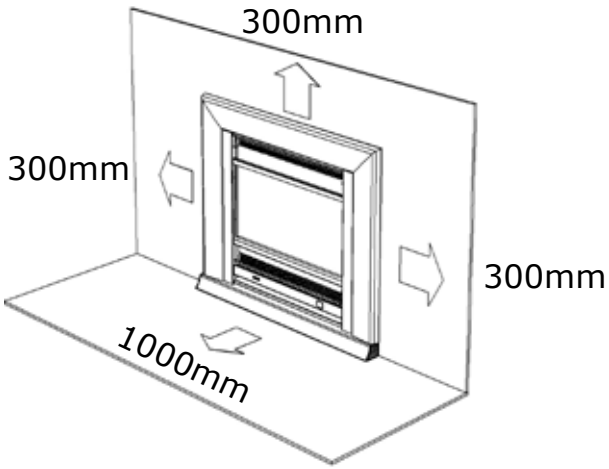
Before using this appliance, please read this manual to ensure correct use. Failure to follow these instructions could cause a malfunction of the appliance. This could result in death, serious bodily injury and/or property damage. Failure to follow these instructions may also void your fire insurance and/or warranty.

Compliance with Local Regulations	The appliance must be installed in accordance with local gas and electrical authority regulations.
Power Cord	Appliance must not be located below a power socket outlet. Local gas and electrical authorities will be able to advise on local regulations. If the supply cord is damaged or requires replacing, it must be replaced by an authorised person. This must be a genuine replacement part available from Rinnai.
Gas Consumption	30-11MJ/h (high to low)
Ventilation	Ensure that the area in which the appliance is installed has adequate ventilation. This ventilation must be provided as per NZS 5261:2003 2.6.6.
Gas Cylinder	Do not connect to an LPG/Propane gas cylinder indoors.
Floor Protection	Heat emanating from the front of this fire may over time affect the appearance of some materials used for flooring such as carpet, vinyl, cork or timber. This may be amplified if the air in the room contains cooking vapours or cigarette smoke. To avoid this occurring, it is recommended that a mat be placed in front of the appliance.
Supervision Required	The appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure they do not play with the appliance.
Painting and Dusty Environments	Do not operate/install this appliance in places where painting is taking place, or in places such as hair dressing salons, where there may be a lot of dust and 'fluff', and where aerosols are used.
Flueing	A gas appliance must not be connected to a chimney flue serving as a separate solid-fuel burning appliance. For installations into new (decorative) fireplaces a Rinnai Zero Clearance Box and Zero Clearance Flue Kit is required. Failure to meet this criteria will void any product warranty. For existing masonry installations, to ensure adequate draw of the appliance, Rinnai strongly recommends the use of a Rinnai Flexiliner Flue system. Failure to meet this criteria may result in an unsafe situation. Installation without a flexiliner flue is permissible as long as the chimney is checked for soundness and ability to achieve a good draw.

Installation

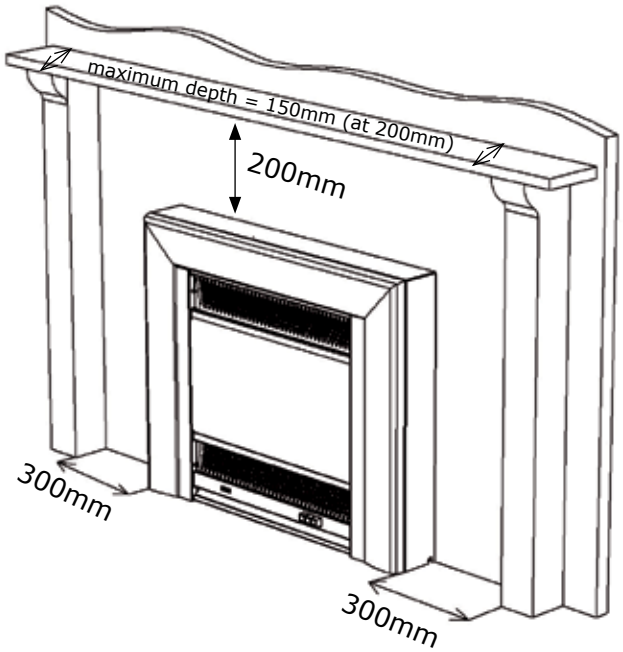
Clearances

The appliance must not be installed where curtains or other combustible materials could come into contact with it. In some cases, curtains may need restraining.



Mantles, Surrounds and Hearths

Mantles and surrounds can be added to compliment design providing they conform to the clearances below.



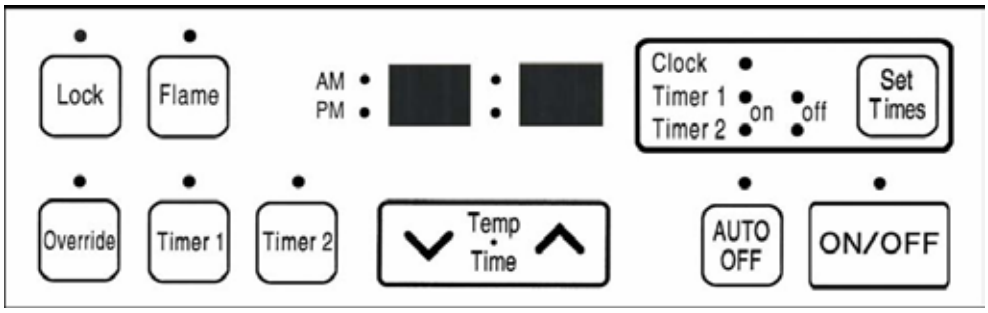
Mantles

- Minimum clearance of 200mm above the fire and a maximum of 150mm at this height
- For additional overhang, 100mm of vertical clearance is required for every 50mm of added depth, i.e. a 200mm mantle requires 300mm of vertical clearance

Hearths A hearth is not necessary but can be used for decorative purposes or protection of sensitive flooring materials if required. If used the bottom of the appliance must be level with the top of the hearth so there is a continuous level.

ETR Operation

Control Panel Layout



Lock	Indicates lock function
Flame	High heat setting, fan on low speed, also overrides thermostat
AM/PM Time/Temperature Display	Shows either the time of day, room and set temperatures or coded error messages
Clock Adjustment and Timer Indicators	Indicates that clock or dual timer programme is being set
Override	Temporarily changes operation from ON to OFF or OFF to ON, until next programmed setting is reached
Timer 1 and Timer 2	Indicates that Timer 1 or Timer 2 has been selected to operate
Temperature / Time Adjustment	Increases or decreases the temperature setting as well as changing hours or minutes
AUTO OFF	When ON, thermostat turns heat down to OFF. When OFF, thermostat turns heat down to low (prevents overheating in small rooms)
ON/OFF	Main switch for turning ON / OFF

Turning On
Press the ON / OFF button to operate the heater. The ON indicator will glow green. The spark generator will be heard before the burner ignites and the ON indicator glows red, indicating that the burner is alight. The fan will come on automatically after four minutes after which warm air can be felt coming from the top grill.

Note: If the heater does not ignite on initial use, this may be due to air remaining in the gas supply line. The spark generator will only continue for 15 seconds. After this it will be necessary to press the ON / OFF button OFF, then ON again.

Turning Off
Press the ON / OFF button to switch off the heater. The ON indicator will go out. The fan will continue to operate for several minutes after the burner has gone out in order to cool the appliance. Do not unplug the appliance while the fan is running.

Room Temperature Adjustment
The room temperature and pre-set temperatures can only be displayed and adjusted when the heater is running.

Press the ^ button to increase the temperature setting or v button to decrease the temperature setting.

ETR Operation

Lock
The 'Lock' function will help prevent accidental operation and small children from altering the controls. To operate press the 'Lock' button. The function is activated immediately and the 'Lock' indicator will glow. To deactivate press the 'Lock' button for three seconds and the 'Lock' indicator will go out.

During normal operation the 'Lock' may be activated and all the controls, other than the OFF switch, will be locked. Deactivating the 'Lock' releases the controls. If the 'Lock' is activated whilst the heater is turned off, then all functions will be locked. If the heater is turned off while the 'Lock' is activated, it cannot be turned on again until the 'Lock' is deactivated.

Flame
To operate press the 'Flame' button. This function will automatically override the thermostat and set the heater to a default high heat setting for full visual flame effect.

Auto Off
The 'AUTO OFF' function is an energy saving feature designed to control the room temperature economically. If the room temperature continues to rise when the heater is thermostatically turned down to its lowest setting the front burner will turn off leaving only the pilot flame operating. When the room temperature requires further heating the heater will automatically re-ignite to warm the room. This feature also prevents overheating in small rooms.

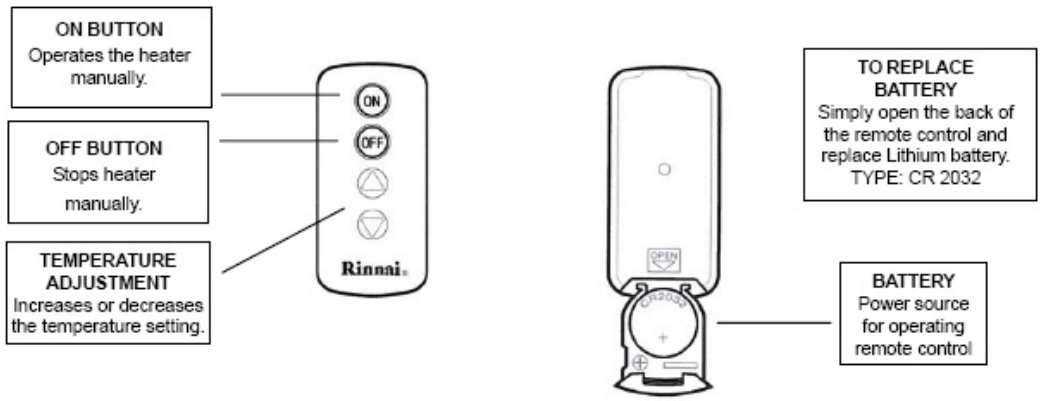
Override
This function is intended to be used to manually override the current operation of the heater when the heater is in 'Timer' mode.

For example: if the heater is in standby mode (i.e. between the finishing and starting timer of a timer operation), and the 'Override' button is selected, then the heater will begin to operate and heat the room.

To operate press the 'Override' button, the 'Override' indicator will flash. To manually deactivate press the 'Override' button again. The 'Override' indicator will go out, and the heater will return to standby mode.

The heater will continue to operate in 'Override' until the 'Override' button is pressed again, or one of the timers takes over the operation of the appliance. This means that the 'Override' mode will automatically drop out if a programmed starting time is reached. The appliance will then return to operating at times programmed into the 'Timer(s)'.

Remote Control
The remote control will not turn heaters on if 'Timer(s)' have been set. To manually operate when 'Timer(s)' are not selected, press the 'ON' or 'OFF' button. To alter the temperature when the heater is operating, press the ▲ or ▼ buttons.



ETR Operation

Remote Control continued
Important points:

- Some fluorescent lights may interfere with the transmission of remote control signals, changing the position from which you are operating the remote may help
- Avoid dropping the remote or getting it wet
- Remote control works within five metres of the receiver from the heater
- Remove battery if control is not going to be used for a long period, this will help avoid damage from leaking batteries.

If the 'Timer(s)' have been selected, and the heater is in standby mode, and the 'OFF' button on the remote control is pressed, the 'Timer(s)' will be deactivated.

Batteries are supplied with the remote when ordered with the fire. If purchasing the remote as an additional accessory batteries are not included.

Setting the Clock
Example, setting the clock to 10:35am

1. Press the 'Set Times' button once, the 'Clock' indicator will flash
2. Press and hold the ^ button; the minutes will begin to change first, then the time will change by whole hours
3. Release the button when the AM 10:00 shows on the digital display. Confirm that you have selected 'AM', a small indicator on the left hand side of the digital display indicates the 'AM' setting.
4. Press and hold down the ^ button again, release the button when AM 10:35 shows. If you go past 'AM' then the v button can be used to change the settings in reverse.
5. Press the 'Set Timer' button five times to lock in and complete setting the time. The 'Clock' and 'Timer' indicators will go out. A small indicator on the digital display will flash to show that the clock is operating.

When the appliance is plugged in or after a power failure, the digital display will show --:--

Programming the ON / OFF Timers
Before programming the Timers you must ensure that the clock has been set to the correct time.
Example, 'Timer 1' to heat the room by 7:10am and finish at 9:00am

1. Press the 'Set Times' button twice, the digital display will show AM 6:00, 'Timer 1' indicator will flash
2. Press the ^ button until AM 7:00 appears, release the button, then press it again until AM 7:10 appears (press the v button if you go past AM 7:10)
3. Press the 'Set Times' button again, the 'Timer 1' off indicator will flash. Press the ^ button until AM 9:00 appears (press the v button if you go past AM 9:00)
4. Press the 'Set Times' button three times to lock in the program time, a small indicator on the digital display will flash to show that the display has returned to the clock.

'Timer 2' is programmed in the same way. Remember to ensure that the 'Timer 2' indicator is flashing when you program in the desired setting. The timers can be programmed to operate for any two periods within twenty four hours.

ETR Operation

Operating the Timers
Before operating the 'Timer(s)', the clock time must be correct and a start and finish time must be programmed (see previous page). This heater does not commence operation at the programmed start time, as it attempts to heat the room by the programmed start time (refer Preheat section below).

To select the 'Timer(s)' to commence heating:
1. Check the time shown on the digital display is correct

2. Check the 'ON' and 'OFF' times for both timers if necessary

3. Press the 'ON/OFF' button to operate the heater, the 'ON' indicator will glow green and the heater will begin to operate

4. Select the desired temperature setting

5. Press the 'Timer 1' and/or 'Timer 2' button(s). The timer indicators will glow and the heater will remain in standby until one hour prior to the time programmed. When this time is reached, the 'Timer' indicator will flash and the heater will operate. The 'ON' indicator glows red when the heater commences operation.

Set and Forget Operation
The heater can be operated to alternate between timers automatically during cold weather by selecting 'Timer 1' and 'Timer 2' together. Both timer indicators will glow. The appliance will remain on standby at intervals between the programmed start and finish times of each timer. While the heater is operating during programmed intervals the timer indicator will flash.

What does all this mean...

You can program the heater to turn on in the morning when you wake up and turn off when you leave and also again in the evening when you get home. The set and forget operation combined with the preheat functionality means you can wake up and come home to warm areas in the house.

If there is a power failure, the system memory will retain the timer programs, and the clock will stop at the time the power goes off. The clock will start again when the power comes back on, but the time will be slow by the duration of the power failure. To set the clock to the correct time after the power has come back on, follow the instructions on previous page.

Preheat
This function operates automatically in conjunction with either of the timers. When a timer is selected, the heater may turn on anywhere within an hour prior to the programmed start time of the timer. The preheat function will attempt to preheat the room by the programmed 'ON' time.

This function is called the preheat due to the way it operates. The room temperature is sensed one hour before the programmed time of either timer. The temperature differential at the time of sensing the room governs how long before the programmed 'ON' time the mircocomputer will operate the heater and ignite the burner.

Maintenance, Servicing and Repair

Your heater needs very little maintenance, however the following information will help you keep it looking good and working efficiently.

- Unplug electrical cord before cleaning
- DO NOT USE SOLVENTS. All parts of the heater and remote control can be cleaned using a soft, damp cloth and mild detergent. Do not attempt to clean the heater while the appliance is hot or operating.

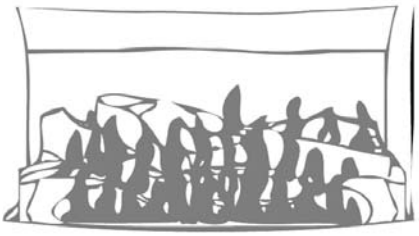
Visual Inspection of Flame - Get To Know Your Flame Pattern

Each Rinnai Flame Fire has a distinct flame pattern. This should look the same every time you start your fire, after an initial warm up period of approximately 20 minutes.

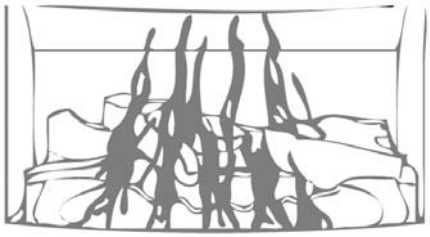
Abnormal flame performance and or pattern can indicate a problem with your fire, such as a blocked flue or gas injectors. There are some warning signs that could indicate a problem.

- Unusual smell from the appliance, this could indicate a blocked flue
- Continued difficulty or delay in establishing a flame
- Flame appears either very short or very long

Normal



Abnormal



- Flame only burns part way across the burner
- Artificial logs or burn media have shifted from when the fire was first installed
- Soot building up on the inside of the glass door

During installation there will be an initial burning in period where some smoke and smell may be experienced. This is a normal part of the operation but should be done in a well ventilated room until these dissipate.

If any of the above signs occur, please call Rinnai to discuss.

Servicing and Repair

Rinnai has a service and spare parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance.

If your appliance needs servicing, please call 0800 RINNAI (0800 746 624) and select option 1 for a Service Centre in your area.

For reliable operation Rinnai Flame Fires should be serviced every two years (including inspection of the flue system). If they are in a particularly dusty environment or subject to excess lint, for example dog hair or where there are newly laid carpets then annual servicing would be beneficial.

Regular servicing is not covered by the Rinnai warranty.

Do not attempt to carry out any service work other than that mentioned in the troubleshooting pages. If you have any other faults or problems, please refer to your installer or call Rinnai on 0800 RINNAI (0800 746 624).

Troubleshooting and Error Codes

Symptom	Cause	Solution
Burner will not light	• No power present • No gas present • Power cut • Air in gas pipe • Ignition failure	Ensure power cord is plugged in and turned on Ensure gas supply is turned on Re-ignite after power is restored Purge air (installer to do) Repeat lighting procedure
Smell of gas	• Leaking gas	Turn gas off at meter and call Installer
Fan not working	• Heat switch not activated	Allow heater to run on HIGH for 15mins
Small soot deposit	• Normal operation	No action required
Severe soot deposit forming on glass or logs	• Inadequate flue system, log misalignment or incorrect gas pressure	Call Installer
Condensation on glass	• Normal operation	Allow heater to warm-up
Streaky lines on glass	• Normal operation	Clean glass
Digital error message on control panel	• Electronic fault detected	Refer error codes

Safety Device
The appliance is fitted with an overheat safety switch. Under overheating conditions this switch will shut off the appliance. If the appliance shuts off repeatedly servicing may be required.

Error Codes

Error Code	Probable Cause	Comments
11	• Ignition failure	Check gas is turned on. Service call if repeated.
12	• Flame failure	Check gas is turned on. Service call if repeated.
14	• Overheat	Service call
16	• Room overheat	Lower room temperature to less than 40°C
31	• Room temperature sensor faulty	Service call
32	• Room temperature sensor faulty	Service call
33	• Overheat temperature sensor faulty	Service call
70	• Faulty ON/OFF switch	Service call
72	• Faulty flame rod	Service call
73	• Communication error	Turn heater OFF, then ON again
99	• Flue blocked	Turn on to low for 20mins to allow the flue to warm up then turn up higher. Service call if problem persists.
--:--	• Power failure	Turn heater OFF, then ON again

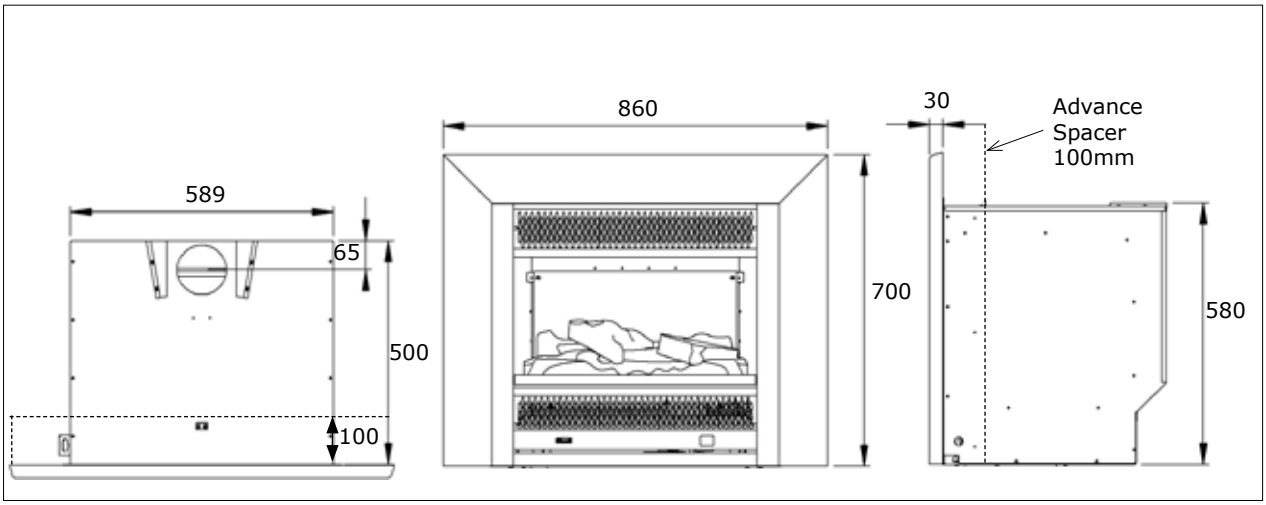
In all cases, you can clear the error message by turning the heater OFF, then ON again. If the error message still remains, please contact your nearest service contact and arrange for a service call.

Installer Information

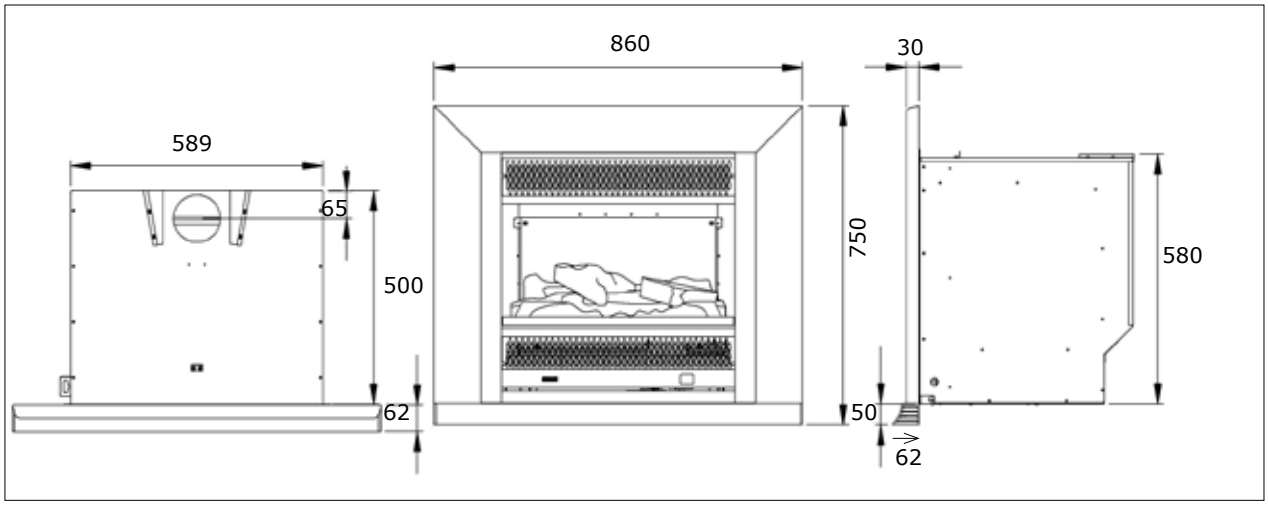
Dimension Diagrams

All measurements are in mm.

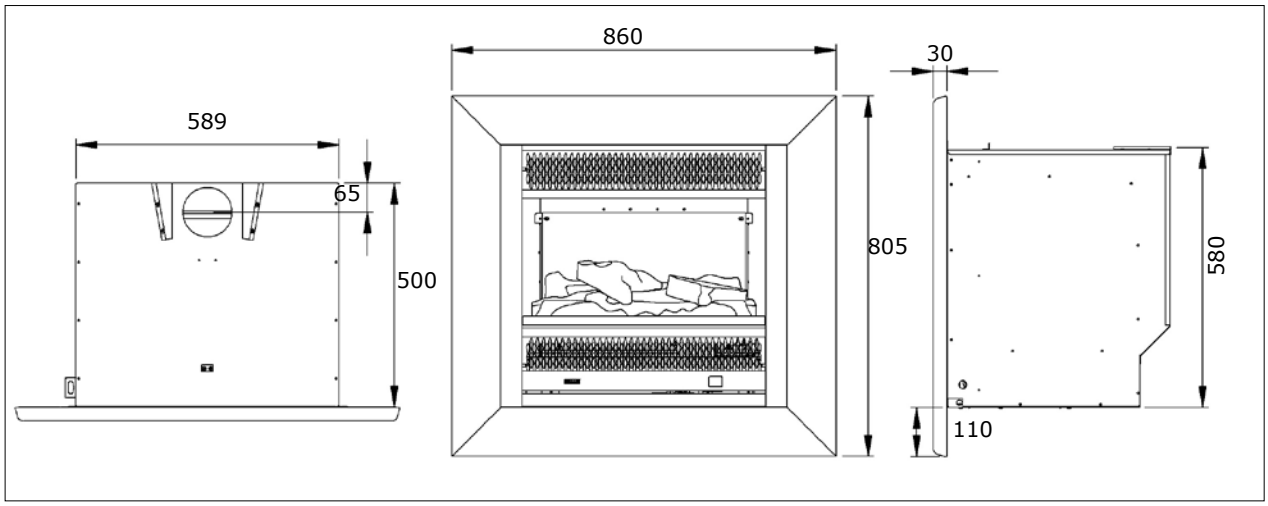
Advance



Amplify



Elevate



Appliance Location

General

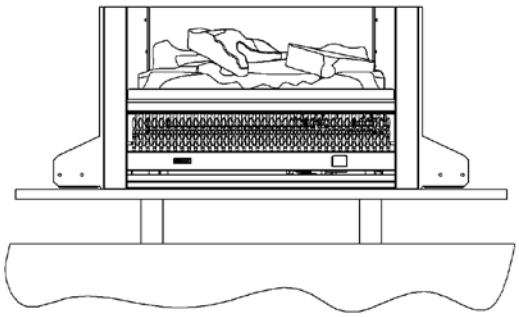
When positioning the unit the main points governing location are flueing and warm air distribution.

This heater must not be installed where curtains or other combustible materials could come into contact with the appliance. In some cases curtains may need restraining.

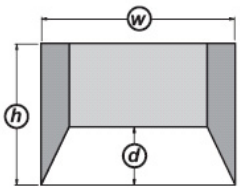
Enclosure Requirements

The heater must be positioned on a flat and level surface that allows free movement of the appliance.

- Masonry Installations, use a slurry of sand and cement to level base as required
- Decorative Fireplace, if the heater is elevated the Zero Clearance Box needs to be supported, either construct a base using board with supporting joists as shown or support with the frame itself



Enclosure Dimensions		
	MASONRY INSTALLATION	DECORATIVE FIREPLACE
W-Width	590-790mm	700-720mm
H-Height	585mm	735mm
D-Depth	410mm	600mm
All dimensions provided are critical to the installation of this appliance and must be adhered to.		



Elevate Installations

The Reflection Elevate is designed for up-wall decorative installations and has a frame of 4 sides. To ensure you get the desired look or if floor mounting, remember to allow for these frame dimensions when determining positioning of the enclosure to ensure adequate clearance.

A functional height is 400mm from the floor to the bottom of the Zero Clearance Box is recommended. When integrating a floating hearth, this clearance can be stretched to 600mm. The Reflection range has a top air discharge so this needs to be factored when installing.

Gas Supply and Connection

Pipe Sizing

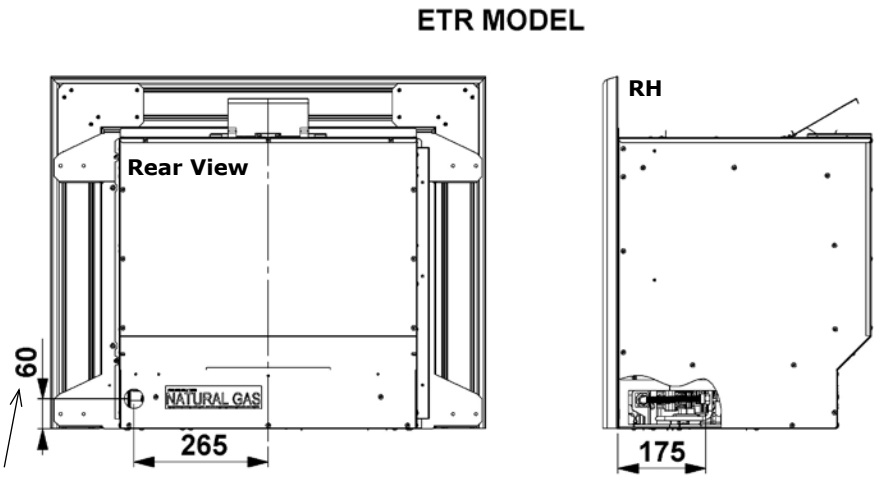
Gas pipe sizing must consider the gas input to this appliance as well as other appliances in the premises. The gas meter and regulator must be specified for the total gas rate. An approved sizing chart as the one in NZS 5261 should be used.

Purging Supply of Air and Debris

All foreign materials such as filings must be purged from the gas supply, as they may cause the gas control to malfunction.

Reflection Gas Connection

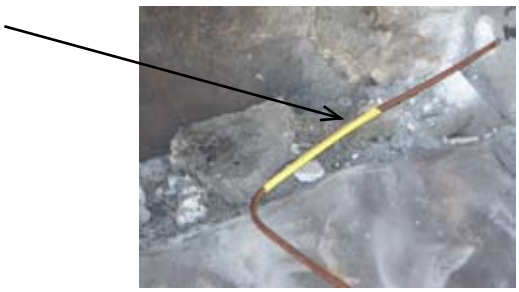
The gas supply terminates inside the heater and enters the appliance from the rear. To ensure correct positioning, terminate the gas supply so that it is approximately 80mm in from the front face of the enclosure opening. As this is a flare connection, sealant is not recommended.



If using a zero clearance box, this 60mm measurement is taken from the spacer

Masonry Fireplaces and Copper

Brick work can be alkaline which can be corrosive to copper. Gas fitters often wrap tape around the copper pipe coming into contact with the brick work.



Flueing - General Guidelines

Every appliance requires a flue system that will draw effectively and clear flue products safely under all potential wind and climatic conditions.

It is the responsibility of the installer to ensure that the appliance is provided with an effective flue. Some guidelines to assist with flue design for the Reflection is listed below. These must be read and modified as necessary with reference to the particular installation.

Flue Terminal Locations

Must be compliant with 'Clearances Required for Flue Terminals' from NZS 5261:2003

Minimum Flue Length

This is required for adequate draw and prevents spill-back of combustion products which can cause safety sensors to shut down the fire.

- 3.6m vertical
- 1.2m of vertical flue is required before any bends or offsets

Maximum Flue Length

Rinnai recommend a maximum flue height of 8m.

Flue Systems

For new fireplace installations a Rinnai Zero Clearance Box and Flue kit is a mandatory requirement to meet warranty conditions.

For masonry installations, to ensure adequate draw, Rinnai strongly recommends the use of a Rinnai Flexiliner Flue System. Failure to meet this installation criteria may result in an unsafe situation. Installation without a flexiliner flue is permissible as long as the chimney has been checked for soundness and ability to achieve a good draw.

Shared Flues

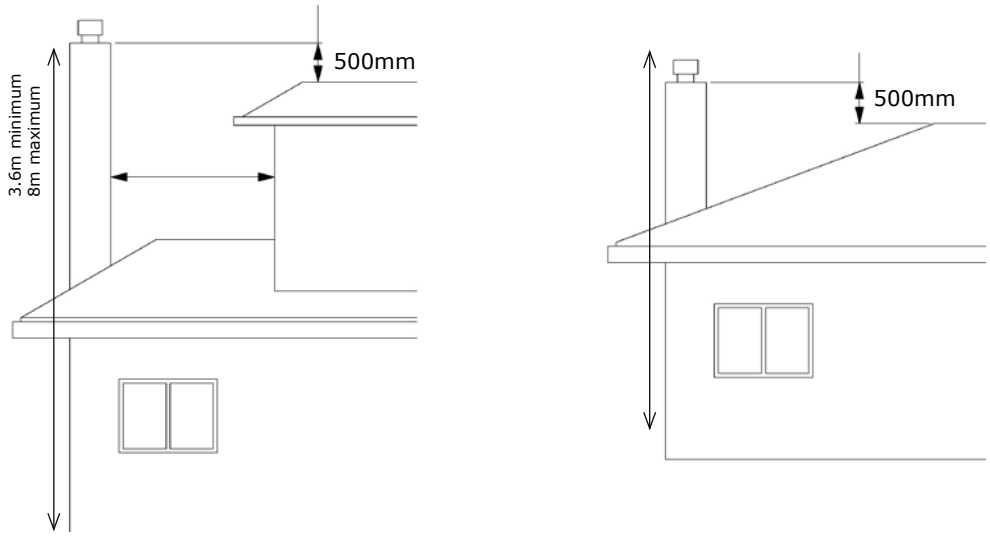
Gas appliances must not be connected to a chimney or flue serving a separate solid fuel burning appliance.

Flue Cowl Clearance

To ensure products of combustion are cleared, adequate clearance from the building is required. The following guideline is recommended.

Flue cowl should have a 500mm clearance from any part of the building. This also applies to steeped and pitched roofs which should be 500mm clear of the ridge line as displayed below.

Lesser clearances may provide perfectly adequate flue systems depending on the installation. Minimum clearances are shown in NZS 5261.



Flueing - Existing Fireplace

Check Dimensions of Opening

Refer page 17 and if necessary bring them to the required dimensions. Also check chimney height as inadequate height can effect product performance. Some installations may require the chimney height to be extended to reduce down drafts.

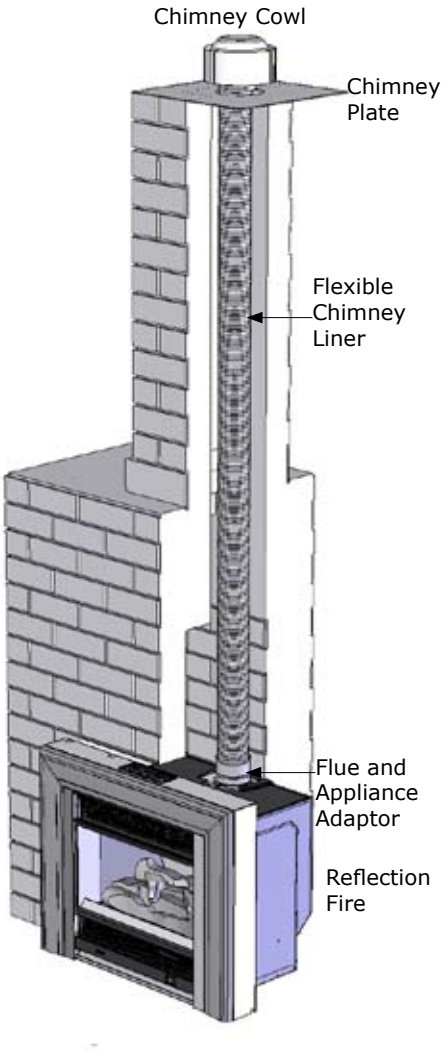
Check Flueway

Ensure there are no obstructions. Provide a firm, flat and sealed base. Sealed means no holes or openings in the fireplace. If heater is not properly supported noise and vibration may result.

Install Flexiliner Flue System

Ensure a minimum vertical rise of 1.2m before any change of direction. Avoid sharp bends as this will restrict the chimneys ability to draw.

Installation without a flexiliner flue is permissible as long as the chimney has been checked for soundness and ability to achieve a good draw. Some criteria for checking soundness is listed below.



- All loose/broken bricks must be replaced or repaired ensuring the chimney is of sound construction and does not leak
- Chimney must be swept clean and free from soot and creosote that may have built up if previously used for a solid fuel fire
- Any damper plate must be fixed in the open position or removed
- Any under-floor air supply to the fireplace must be completely sealed off to prevent secondary air draw
- An approved chimney cap and cowl must be installed. If there is an existing cap it must be free of defects/deterioration and repaired/ replaced

Flueing - Decorative Fireplace

Overview of installation steps for a decorative fireplace

Flat wall

Construct frame

Install Zero Clearance Box

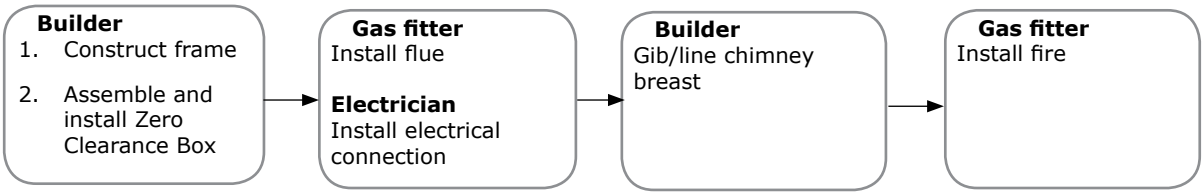
Drop in Flue

Plaster and Paint

Install appliance

For installations into decorative fireplaces a Rinnai Zero Clearance Box and Zero Clearance Flue Kit is required. Failure to meet this installation criteria will void any product warranty.

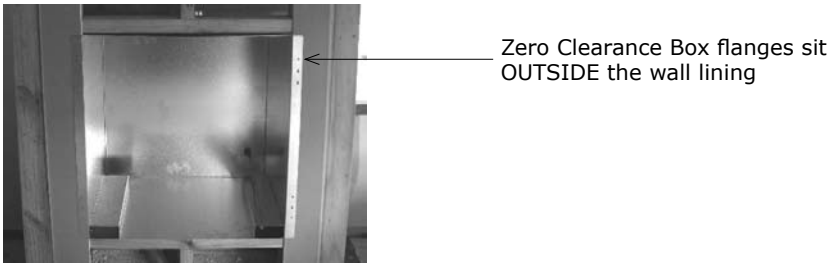
We have developed a simple overview as to the steps and trades involved. Installing the fire last minimises building debris/dust entering the fire which is common when building/ renovating.



Construct Frame and Install Zero Clearance Box

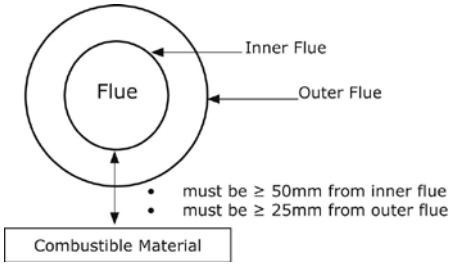
Refer enclosure dimensions on page 17. Assemble and install Zero Clearance Box. Installation needs to be on a level base. If this is not done the appliance may twist and be damaged and will void any product warranty.

The Reflection Zero Clearance Box flanges sit outside the lining. This needs to be taken into account when calculating the depth dimension. The 600mm currently stated does allow for this.



Install the Flue and Complete Electrical Connection

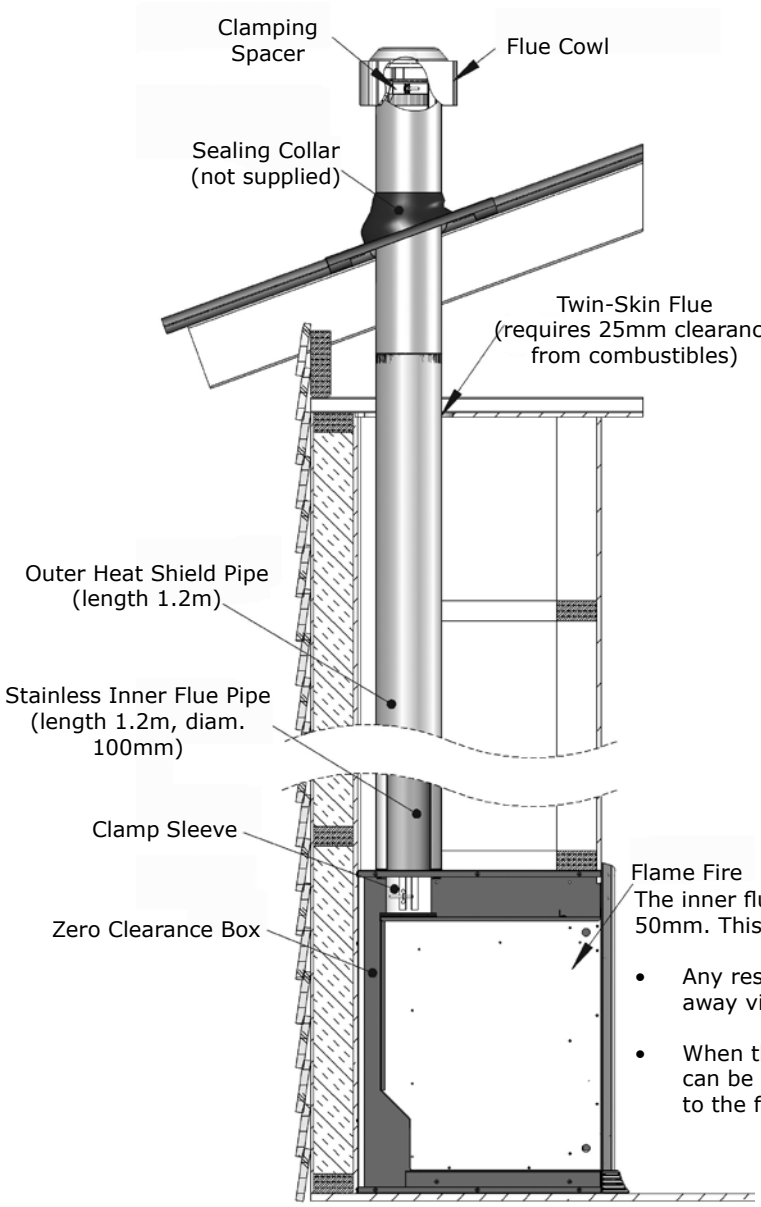
The flue should be self-supporting. This is usually done at the framing stage with flue supports (x2) provided in flue kit which act as a bracket. These are riveted to the flue. Please note twin-skin flue requires a 25mm clearance from combustibles.



Electrical cord is not fire rated and should not come into contact with the fire. An electrical isolation switch is also required so positioning of this switch needs to be factored when assessing where to install the unit.

Flueing - Decorative Fireplace

Outline of Flueing Components (flue supports and flue adaptor not shown)


Clamping Spacer
Flue Cowl
Sealing Collar (not supplied)
Twin-Skin Flue (requires 25mm clearance from combustibles)
Outer Heat Shield Pipe (length 1.2m)
Stainless Inner Flue Pipe (length 1.2m, diam. 100mm)
Clamp Sleeve
Zero Clearance Box
Flame Fire

The inner flue should penetrate the box by 50mm. This is to ensure:

- Any residual heat in the box is ducted away via the outer flue
- When the fire is installed the clamp sleeve can be lowered to connect the fire spigot to the flue

Installation Procedure

Unpacking the Appliance and Associated Accessories

CHECKLIST		
1.	Engine (logset inside chamber)	
2.	Trim Kit (black provided as standard)	Supplied with engine
3.	Frame	Supplied separately
4.	Flexi-pipe gas connection	Supplied with engine
5.	Seal Strip, Advance only (for sealing appliance to enclosure)	Supplied with spacer
6.	Operation and Installation Instructions	Supplied with engine
7.	Remote Control (battery included)	Supplied with engine
8.	In-wall Control Panel complete with 2m cable (typically supplied with Elevate and Amplify, provided with Advance if spacer is not ordered)	Supplied separately
9.	Spacer, only for Advance models (ETR contains control panel)	Supplied separately
10.	Rinnai Zero Clearance Box and Zero Clearance Flue Kit (Decorative Installations only)	Supplied separately
11.	Rinnai Flexiliner Flue Kit (Masonry Installations only)	Supplied separately
	Optional	
12.	Dress Guard	Supplied separately
13.	Stainless Steel Trims	Supplied separately
14.	8m Extension Cable	Supplied separately

Check for damage. If damage has occurred, contact your supplier for advice. Before installation, check it is labelled for the correct gas type.

Remove the heater body assembly from the carton and position in front of the enclosure.

Installation Procedure

Preparation

Remove Glass Retainers Place the appliance on a flat surface. Remove screws from the top and lower glass retainers and lift off glass. This makes it easier to maneuver the fire into the cavity.

Remove Logset Carefully remove from the heater and place in a safer location until required.

Check Flexi-Pipe Connection Make sure that the gas flare fitting and gas supply pipe are clean and free of damage and fit together ready for fitting.

Electrical Connection

This appliance has a power cord with a three pin plug supplied. The power cord passes through the insulating bush in the lower right hand side of the rear panel and must be plugged into a 230-240V, 10A earthed power point.

The power point must not be above the unit. The electric isolation switch must be accessible after the appliance has been installed.

If using a zero clearance box, there is a knock out for the electrical connection with an edge protector supplied. This needs to be cut and fitted.

Advance Masonry Installations Electrical cord is not fire rated. Do not thread out of the back of the fire as there is a risk the cord could come into contact with the back of the heater.

In-Wall Control Panel Refer instructions on page 29.

Masonry Installations - Apply Sealing Strip

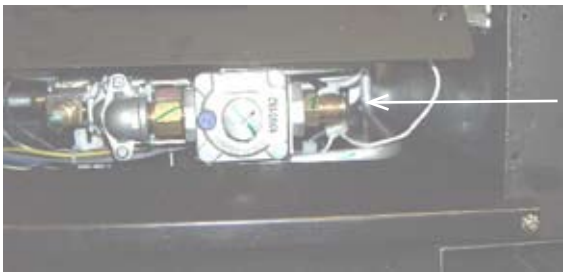
Apply sealing strip to rear of spacer/heater as shown. The strip is intended to form a seal between the heater and the fireplace. If an adequate seal cannot be formed with this strip another means of sealing must be used (non combustible insulation) between the fireplace and the spacer/heater body.

Installation Procedure

Slide Heater into Fireplace

Remove Top and Lower Trims to Expose Gas Connection

To do this remove the screws holding the trims in place. For the lower trim exercise care when removing as you will need to remove the control receiver board from the holder.



Attach Flexi-tube to Gas Pipe

Slide Heater into Position

Do this carefully without forcing, while feeding the stainless steel flexi-tube through the supply access opening. Sometimes the connection can catch on the back of the fire, if this occurs either use a long drill bit, thread into the gas pipe from the front to pull through and/or remove the plates above and below for easier access to the gas connection coming through.

Flue Protector Plate

A spring loaded flue protector plate is fitted to prevent the entry of foreign objects for a masonry chimney installation. If a flexiliner flue system is not used the plate will fold down as the heater slides through the fireplace opening.

Make sure that it is not restricted and returns to its normal position when the heater is installed. If the fire has to be removed, the plate will pivot backwards to allow the heater to slide clear.

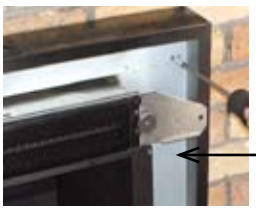
When a flexiliner flue system or Zero Clearance Box is used, the flue protector plate must be unscrewed and removed.

Once the heater is sitting flat secure via the pre-drilled holes in the heater surround.

Secure Heater to the Fireplace

If using a Zero Clearance Box (ZCB), ensure inner holes of heater mounting brackets align with the holes on the ZCB. The outer holes are for fixing the frame to the ZCB.

For a masonry fixing, measure and drill 4 holes in the fireplace and insert wall plugs to secure backing plate and spacer to the fireplace.



Installation Procedure

Logset Installation

The logset assembly is made up of a main, top and right log (assembled as 1 piece) with 2 holes underneath for location onto the pins and inside the heater.

Remove Log Packing and Place Logset

Carefully remove log packaging and place the logset onto the heater ensuring that the locating pins enter the two locating holes of the logset.

Place Granules

Gently place loose ember bed material in front of the main log. Level it with a pencil or screwdriver and remove excess material.

Do not pour granules as dust particles from plastic bag may block the burner ports. The granules must be placed after the logset is fitted. If the logset is to be removed for any reason the granules must be removed first.

Any material that prevents the logs sitting flat on the burner top can upset the burning pattern and performance of the heater.

Replace Glass and Condition Logset

Replace and fit glass so that the join/gap in the glass seal is at the bottom. Take care not to damage the seals.

When first lighting the heater, the logs need burning in. This can take approximately 2 hours for the logs to achieve their full flame pattern and glow.

During the initial burning in period, some smoke and smell may be experienced. The heater should be run on the high setting in a well ventilated room until these dissipate.

Testing Procedure

Turn on gas supply and plug the unit into power supply.

Check Burner Pressure

1. Remove test point screw and attach manometer to test point (right hand side of gas valve)

2. Light heater, turn to high setting and check pressure (refer data plate). You will need to wait 3 minutes before checking the pressure due to PCB time delay to reach the high setting.

3. Adjust if necessary using regulator situated on the front of the gas control. After checking pressure turn appliance off, remove manometer and replace test point screw.

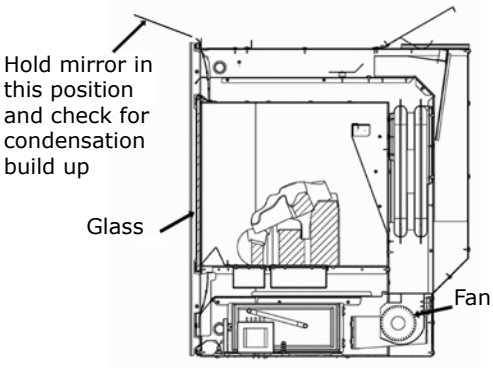
Check Ignition

Turn the heater on and off a few times to check ignition. When you are satisfied that the heater is working correctly reassemble.

Check for Spillage

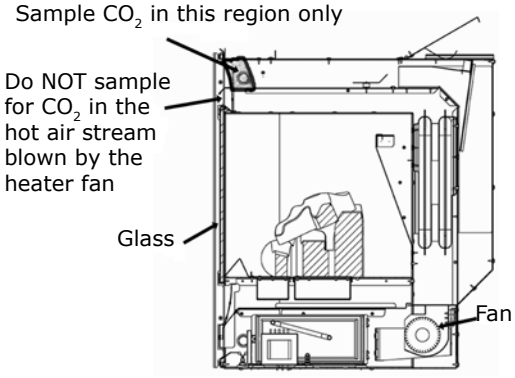
Run heater for approximately 10 minutes to check for spillage, ensuring products of combustion are cleared from the room. This must be done using one of the following methods below.

It is the responsibility of the installer to check (under normal operating conditions of the appliance) all flue gases are exhausted to the outside atmosphere and that there is no spillage of combustion gases into the room. Please refer to NZS 5261:2003.



After running the heater on high for 5 minutes, hold a mirror or reflective surface over the top of the heater as shown.

Look for any condensation build-up. Any condensation on the mirror indicates the heater is spilling CO_2 into the room which is not acceptable.



Before starting the heater use a CO_2 capable gas analyser and record the ambient CO_2 percentage in the room.

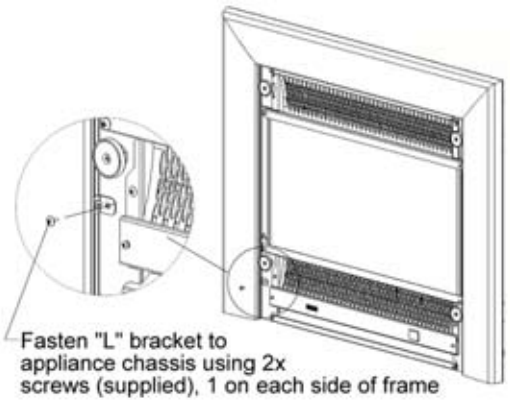
Turn the heater on and run on high for 5 minutes, then check for CO_2 emissions at the top of the vent of the heater as shown. The reading should be no more than the initial ambient reading.

All burner aeration is factory preset and cannot be adjusted. If you are unable to get the unit to operate correctly refer to Troubleshooting guide on page 14 before contacting Rinnai.

Installing the Frame, Trims and Dress Guard

Installing the Frame

Hang the top of the frame over the angled metal lip of the fire body, frame should slot into place as shown.

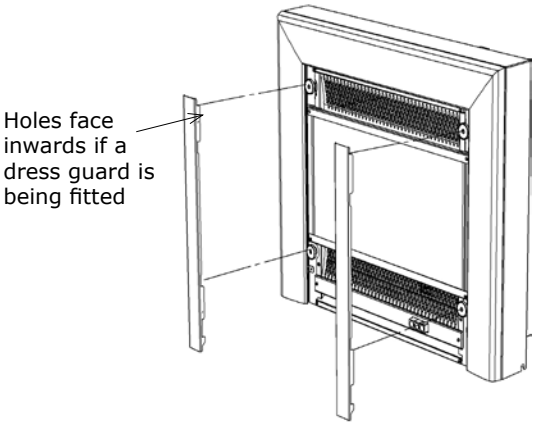


Installing the Trims

Attach trims to large circular magnets on either side of the heater.

If installing the dress-guard ensure the holes on the trims face inwards, these are used to secure the guard to the heater.

If a dress-guard is not being used, the holes should face in towards the frame so they can't be seen. To remove pry trims from the lower edge closest to the inside of the fire.

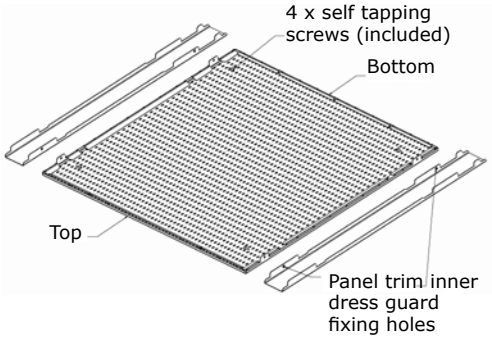


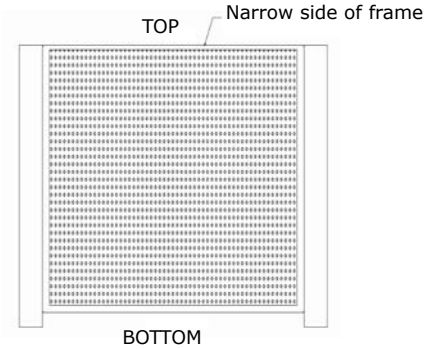
Installing the Dress Guard

Position trims either side of the dress guard and using the four self tapping screws provided, fasten the trims to the dress guard.

The top of the dress guard can be identified because it has a narrower section of frame, and once assembled, the top of the frame should align with the top of the trim.

Position assembled dress guard onto the magnets, being careful not to scratch the glass front. For cleaning and servicing, the dress guard can be removed by pulling it outward from the bottom.



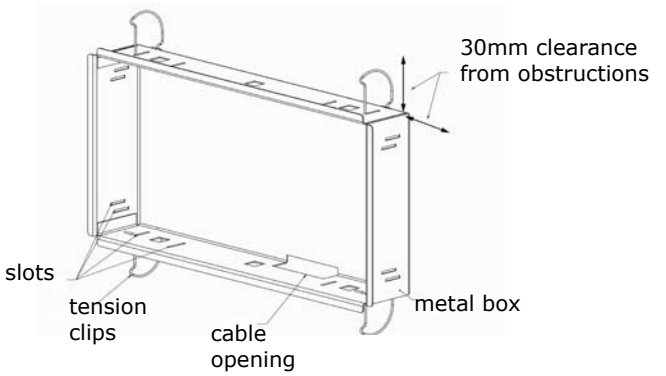


Installing the In-Wall Control Panel

Decide on Suitable Location

The cable must be routed back to the heater, is 2m in length (additional option of 8m can also be purchased).

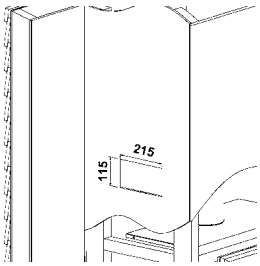
Choose a location 30mm clear of any obstruction inside the wall such as framing, pipe work, cables etc.



The control cable should not run alongside any other electrical cabling.

Mark a Template Using Metal Box

Mark a horizontal line on the wall, using a spirit level for the location of the bottom of the control panel.



Pull the metal box from the control panel assembly. Using the back of the metal box as a template, align the long side of the box with the horizontal line on the wall, and trace around the back (not the flange) of the metal box. This will be the minimum size of cut-out for the control panel.

For plaster board cut along traced outline using a sharp blade first.

Cut Out Marked Outline

Drill a 6mm hole in each corner of the outline. This will allow you to use a keyhole saw to cut between the holes. Flange thickness of the metal box is only 5mm so care is needed when cutting so as not to deviate outside the traced line.

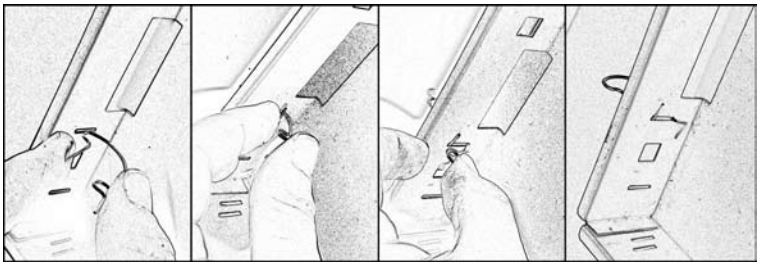
Insert Metal Box

Before inserting the metal box into the cut-out, pull the cable through the opening provided in the lower part of the metal box. Insert the metal box into the newly formed cut-out. Using the 4 tension clips provided, post them through slots to retain the metal box in the plaster board cut-out.

A choice of slots is provided. You may choose to fit the box top and bottom or left and tight. The slots are also punched at 2 alternate depths to allow for both 10 and 13mm plaster board.

Connect Everything Together

Connect the control panel to the extension cable. Feed the cable connection back through the opening in the metal box, so that it is now located in the wall cavity. The control panel can now be inserted into the metal box. A click should be felt once properly located.



Commissioning Checklist

Complete the installation and commissioning checklist below and make sure this manual is left with the customer. Explain to the customer about the use and care of the unit and understands the instructions and operation of the appliance.

If operating without a dress guard please follow safety instructions to prevent the risk of injury from burns. Young children and the infirm should be supervised at all times.

	NO	YES
1. Appliance positioned in suitable location? (i.e. clearances, combustibles etc.)	☐	☐
2. Was a Rinnai approved flue system installed and is the flue drawing effectively	☐	☐
3. Has specified gas pressures been checked and set?	☐	☐
4 Is the logset located correctly?	☐	☐
5. Have the granules been placed evenly on top of the burner, free of dust and powder?	☐	☐
6. Has the appliance been test fired for correct operation?	☐	☐
7. Is the end-user fully aware of operating procedure?	☐	☐

Installer Details

Company name:_____

Installers name:_____

Address:_____

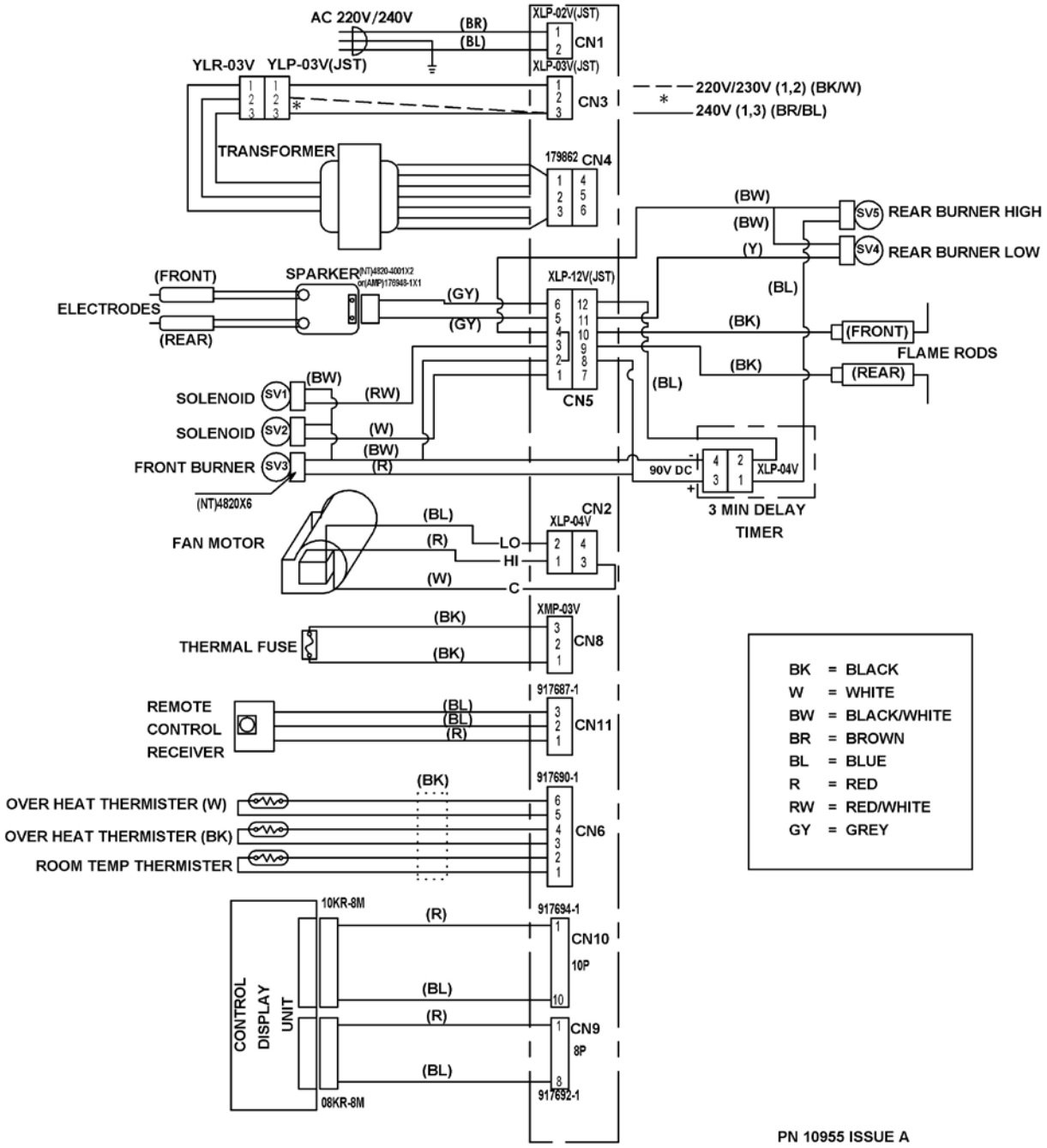
_____

Phone:_____Mobile:_____

Permit number for installation:_____

Signed: _____ Date:_____

Wiring Diagram (ETR)



Customer Contacts

For more information about buying, living and servicing of Rinnai appliances call:

- Consumers 0800 RINNAI (0800 746 624)
- Installers 0800 TO RINNAI (0800 86 746 624)

Rinnai New Zealand Limited

105 Pavillion Drive
Airport Oaks PO Box 53177
Mangere Auckland Airport
Manukau Manukau 2150

Phone: (09) 257 3800
Fax: (09) 257 3899

Email: info@rinnai.co.nz
Website: www.rinnai.co.nz

All Rinnai appliances meet or exceed the safety standards required by New Zealand gas and electrical regulations.

Rinnai is constantly improving its products and as such specifications are subject to change or variation without notice.

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Instructions
Part Number: 10957
Issue: C